ABSTRACT OF THE DISCLOSURE

An auto-focus method for focusing an optical arrangement of a sub-micron optical system. The optical system includes a head, at least part of the optical arrangement being mechanically connected to the head. The optical arrangement is configured for reading from or writing to a surface of a medium. The head performs a scanning motion relative to the surface. The method includes illuminating at least part of a first viewing region of the surface by the optical arrangement while performing a focus range measurement of a second viewing region of the surface. The method also includes providing relative movement between the medium and the head in order for the optical arrangement to illuminate at least part of the second viewing region. The method additionally includes adjusting the focus of the optical arrangement based upon the focus range measurement.